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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,164	06/02/2000	Richard Foltak	2705-96	7344

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EXAMINER

AGDEPPA, HECTOR A

ART UNIT PAPER NUMBER

2642

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,164

Applicant(s)

FOLTAK ET AL.

Examiner

Hector A. Agdeppa

Art Unit

2642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 4/4/05. Claims 1 – 6 and 8 - 41 are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1 – 6 and 8 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,239,542 (Breidenstein et al.), US 6,327,508 (Mergard), or in addition US 5,544,236 (Andruska et al.) and / or US 6,356,627 (Hayball et al.)

As to claim 1, Breidenstein et al. teach a TDM switching system having a memory for storing various state and protocol-specific tables/matrices read as the claimed memory. (Abstract, Col. 4, lines 34 – 53) Breidenstein et al. also teach a time slot interchange (TSI) 10 which separately or in conjunction with processor and memory 16 receive and transmit line signaling, read as the claimed trunk controller. (Figs. 1 and 4, Col. 2, line 65 – Col. 63) Breidenstein et al. also teach that processor (and memory) 16 constitute a state machine which by accessing/executing the above-mentioned tables conducts line signaling in the TDM system read as the claimed device processor, once a specific signaling type is determined to be used over a certain trunk/circuit. (Col. 3, line 6 – Col. 5, line 35)

What Breidenstein et al. do not teach is the use of dynamically configurable signaling templates. Breidenstein et al. instead teach a system employing various set templates or tables according to the various protocols conversion may be needed for.

However, Mergard teaches a general purpose dynamically programmable state machine which allows for dynamically changing state machine functions through the use of masking and comparator functions. (Abstract, Figs. 3 and 4, Col. 2, lines 29 – 50 of Mergard) This masking and comparator functions, specifically operate as the claimed dynamically configurable set of signaling templates since they define the different values which make up a template or table. (Col. 4, line 46 – Col. 6, line 23 of Mergard)

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have implemented a dynamically configurable state machine/set of templates in the invention of Breidenstein et al. inasmuch such a feature is now old and well known in the art and it is the obvious extension to static state machines/templates. The motivation for this is simply that less protocol/signaling prediction is needed when dynamic configuration is available. The technology taught by Breidenstein et al. is merely older and it would again be obvious to update it with the more flexible dynamically programmable aspect taught by Mergard. The end result functionality of the state machine taught by Mergard is identical to the one taught by Breidenstein et al. and so could obviously and easily be implemented in the system of Breidenstein et al.

Moreover, Mergard teaches the ability to program new values, inputs, terms, and in the context of Breidenstein et al., then, new templates. This functionality involves

enabling and disabling desired parameters which is analogous to having a new template override an older template.

Interpreted differently, the above-discussed aspect of overriding an old template association with a new template association indicates no deletion of the old signaling template association. Therefore, in this interpretation, Breidenstein et al. and Mergard further fail to teach a new template association overriding an old template association.

However, the idea of overriding a template as opposed to outright deletion of an old template is old and well known in the art as taught by Andruska et al. Andruska et al. teaches using a shadow static data block read as the claimed new template association cast over the actual static data block, read as the claimed old signaling template. (Col. 3, lines 8 – 30, Col. 5, lines 43 – 65 of Andruska et al.) While Andruska teaches the overriding aspect with regards to calling features associated with a subscriber/caller and his/her profile/account, the motivation for doing so, i.e., allowing dynamic changes to call features or call routing on an as-needed basis is applicable to Breidenstein et al, Mergard, and the present invention. (Col. 1, lines 22 – 47 of Andruska et al.) It is a design choice or preference to keep an old template or basic data template and merely override it with a new one as needed because in one sense, no system resources are used or wasted deleting templates or data to only later re-create them. Therefore it would have been obvious to implement the overriding template feature of Andruska et al. in the systems of Breidenstein et al. and Mergard.

Note that as in nearly any type of system, whether telephony or not, expanding the system or adding multiple elements is notoriously old and well known simply to

Art Unit: 2642

increase capacity. As such, it would have been very obvious for one of ordinary skill in the art at the time the invention was made to have simply added another TSI to the invention of Breidenstein et al.

Alternatively, Hayball et al. teaches the use of multiple trunk controllers. (Col. 7, line 61 – Col. 8, line 11 of Hayball et al.) Inasmuch as Hayball et al. is directed in general to communication architectures, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have increased capacity in Breidenstein et al. by merely adding another trunk controller or equivalent thereof, i.e., TSI. Hayball et al. merely teaches that general communication architectures can have more than one trunk controller.

Note that of course, the claimed second trunk controller would have second line signaling, respectively, as already discussed with regard to the one TSI / trunk controller of Breidenstein et al. In other words, there is no different operation or functionality being claimed by adding a second controller.

As to claims 2 – 5, it would be inherent or at the very least obvious for one of ordinary skill in the art to be able to delete or insert needed templates in the system of Breidenstein et al. inasmuch as Breidenstein et al. contemplates providing conversion for many protocols depending on system type, country of use, etc. (Col. 1, lines 15 – 50 of Breidenstein et al.). Therefore, any system utilizing templates according to these various protocols would first have to be uploaded/inserted. And if a protocol becomes defunct or is no longer used, there would be ample motivation in terms of resource/memory efficiency to allow for deletion of its associated template.

Also, Andruska et al. teaches that either accessing an original configuration and updating it, i.e., creating a new template and deleting an old template, or as discussed above, creating a new template to override an old template is possible. (Col. 4, lines 16 – 39 of Andruska et al.)

As to claim 6, Breidenstein et al. teach detecting and re-generating tones and line signaling and therefore it is inherent that a DSP would be needed for this purpose. (Fig. 5A, Col. 1, lines 8 – 15)

Also, Breidenstein et al. teach the above in relation to incoming and outgoing calls. (Abstract) inasmuch as it handles both incoming and outgoing trunks.

As to claims 8 – 11, see the rejection of claims 6 and Fig. 5A and Col. 4, line 34 – Col. 7, line 14 of Breidenstein et al. wherein characters represent the various states and subroutines available and represent the various instructions (directives) which are used to reference the specific protocol and effect the appropriate action.

As to claims 12 – 14, 16, 18, 20 – 27, see the above rejection of claims 1 and 7.

Moreover, Breidenstein et al. has been discussed above and further teach that the templates/protocols are identified by a numbering plan and/or circuit type as well as by screen class. Any of these identifications read on the claimed template “name.” Moreover, there must be some way to identify and differentiate between the various protocols contemplated in Breidenstein et al. so that the appropriate signaling protocol may be used according to what is desired and what type of signaling is received. It is further inherent that a new template would have a new name assigned to it. Otherwise

Art Unit: 2642

there would be no way to differentiate between one template and another. Clearly there would also, inherently be some means and method for assigning that name.

As to claims 15 and 17, Breidenstein et al. teach both a first and second controlling means wherein the first receives signaling according to a first protocol, and the second translates/outputs the signaling into a common or other protocol for signaling transmission. See also the rejection of claim 7.

As to claim 19, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have included such a reporting/notification feature in the system of Breidenstein et al. Reporting and notification of errors is extremely old and well known in the art and is merely a user-friendly or convenience option that a system designer could choose to add to a system.

As to claims 28 – 41, see the rejection of claims 2 – 5.

Response to Arguments

3. Applicant's arguments with respect to claims 1 – 6 and 8 - 41 have been considered but are moot in view of the new ground(s) of rejection.

For clarification purposes, examiner wishes to explain that computers, semiconductors, processors, controllers, databases, etc. are all in arts separate from the telephony arts. Yet, as is well known, all these elements and devices and software can and are very frequently used in telephony systems. As already explained in the previous office actions, Mergard would merely be used to update an element already

Art Unit: 2642

found in the telephony system of Breidenstein et al. Therefore, applicant's argument that the references are in non-analogous arts is not applicable here.

As to applicant's further arguments regarding the single state machine aspect of Mergard, none of the claims use language that suggest that anything happens simultaneously. Moreover, applicant's arguments that the claimed invention does not set any limits on the number of signaling templates is not a limitation that is actually claimed. Therefore, the combination of references can still be interpreted to read on the present invention as claimed.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2642

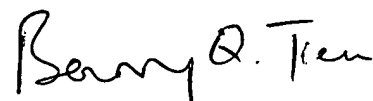
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 571-272-7480. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hector A. Agdeppa
Examiner
Art Unit 2642

H.A.A.
July 8, 2005


BENNY TIEU
PRIMARY EXAMINER
A.U. 2642